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BROWN — CONCISE RESUMÉ OF SUGAR TARIFF TOPICS IN DEFENCE OF AMERICAN SUGAR INDUSTRIES

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CONCISE RESUMÉ

OF

SUGAR TARIFF TOPICS

IN DEFENCE OF

AMERICAN SUGAR INDUSTRIES

AND

Consumers, Commercial, and Revenue Interests

AGAINST ILLICIT INVASION,

THE HAWAII TREATY, ETC.

BY

HENRY A. BROWN,
Ex-Special Treasury Agent, U. S., Saxonville, Mass.

WASHINGTON, D. C.:
JUDD & DETWEILER, PRINTERS AND PUBLISHERS.
1882.

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Entered according to Act of Congress by Henry A. Brown, January, 1882.

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SECTION FIRST.

Sugar Making from Cane Juice—Demerara Crystals versus American Industries—Producing Countries—Consumption, Production and National Requirements—Classifications under the Dutch Standard.

Sugar cane juice, and virtually the juice of all sugar producing trees, plants and vegetables, when expressed therefrom, is generally of a greenish yellow color and exhibits grayish brown globules in suspense; the juice is cloudy and turbid, and contains from 10 to 20 per cent. of sugar crystals in solution, with 80 to 90 per cent. of other matter consisting of water, wood fibre, vegetable wax, gum or albumen, salts, etc., in varied proportions.

Owing to too long exposure in the air before clarifying, imperfect handling, climatic changes, cutting cane too early or too late, and defects in the process of concentration, most of which may be avoided, cane juice seldom yields more than 10 to 15 per cent. of sugar, and the average of sugar hitherto obtained therefrom has not been more than 9 per cent.; the average of sugar obtained from sugar beets does not exceed 8 per cent., and from sorghum the average yield in sugar is about 7 per cent.; improvements in machinery, vacuum pan boiling, and more skillful handling of crops, largely increase the sugar yield from cane and beet juice, and render the production more profitable and rapid.

By reason of sudden climatic changes and the less tropical temperature of Louisiana as compared with Cuba, Hawaii, and other sugar producing countries, the natural difference in sugar yield is largely in favor of those countries: this difference is as 12 to 20, that is, Cuban cane yields juice containing an average of 20 per cent. of sugar, and Louisiana cane yields juice containing an average of about 12 per cent. of sugar: any process that increases the yield from Louisiana cane, would increase it from Cuban cane pro rata.

Louisiana also pays much higher than Cuba for labor, and is struggling under many disadvantages out of the old feudal and slave system, into the new free labor and equality system of the North. This nation is largely dependent upon Louisiana and home sugar production in the future, to check the rapacity of foreign sugar producing countries which already threaten to inundate this country

with abnormally cheap sugars to destroy our sugar industries; having done which, they will enhance the cost of sugar food in the United States at pleasure; self preservation demands tariff protection of our sugar producing industries.

Deducing from general results, I am satisfied that in order to obtain the highest crystalline yield, after cane juice is expressed, it should be heated and clarified immediately, to prevent fermentation which changes a larger percentage of the crystals contained in solution in the juice, into various solvent impurities such as gum, glucose, and invert or uncrystallizable sugar during concentration, than would happen if the juice were heated and clarified without delay.

Cane juice is generally passed through the fumes of sulphurous gas when on its way from the mill to defecators. This gas has a tendency to bleach the juice which, if properly done, is an advanvantage, but sulphurous gas has powerful affinity with oxygen, which it absorbs from the atmosphere with great rapidity, and thereby speedily becomes sulphuric acid which, passing into the syrup, hinders crystallization and injures the product. When sulphurous gas is used to brighten juice or syrup, every precaution should be taken to prevent the introduction of outer air.

Manufacturing raw sugar from cane juice commonly consists of three processes conducted substantially as follows: By the old process the juice is first heated slowly to the point of boiling to clarify it, that is, to precipitate feculents for removal from the raw juice. When the heat does not fully separate feculents from the juice, and when acid is in excess therein alkalies are used, such as quicklime, milk of lime and bisulphate of lime. The quantity of lime required is determined by the use of litmus paper, and feculents are removed by skimming, filtration and settling.

The clarified juice is boiled at about 215° F. to evaporate the juice and reduce it to syrup. The syrup is next concentrated to melada by more rapid boiling at an increased temperature, which should not exceed 235° to 238° Fahrenheit, at which point the best results are usually obtained. During the process of evaporation and concentration, acidity in excess is again corrected by the use of lime, and feculents that rise are removed by skimming.

Open boilers, or kettles, or tanks are used for sugar making by this process, and were formerly used for refining sugars. The use of animal charcoal, called boneblack, for bleaching the syrup has become general in refining sugar, and is used by some sugar makers. Foreign producers of vacuum-pan centrifugals or Cuban and Demerara crystals, bleach the juice or syrup to a very light straw color, nearly white, then boil, evaporate, inspissate, grain, and when intended as accessory of fraud, doctor or discolor the same in the vacuum-pan to outwardly imitate raw sugar in color. The pretense that the feculents are boiled into the sugar to form dark crystals is simply absurd.

Claying raw sugar, also formerly practiced in refining sugar, originated as a process for bleaching raw sugars in China and Java, and the practice quickly extended to other sugar producing countries; the raw sugar is placed in cone shaped vessels holding some 200 lbs. or more, the base remains open, and there is a hole in the apex for drainage; the cone is fixed in a frame in an inverted position and bleaching is begun.

A mixture of white clay and water is placed on the base of the cone, and the clay water percolates the mass of sugar; when the clay mixture becomes dry it is removed, and fresh clay paste applied until the base of the cone of sugar becomes white; when the drainage ceases, the cone is removed and cut into cross sections, each of which differs from the other in shade, from pure white at the base, to light brown at the apex, the whole having a grayish tinge.

This variety in shades of raw sugars clayed in Java, originated the Dutch Standard of color in Holland, which for more than forty years until vacumn pan crystal coloring subverted this natural test, was the only generally accepted method of determining the intrinsic quality and value of cane sugar, and is still employed in all sugar producing countries for the same purpose; but owing to the crystal coloring devices of sugar producers, the trade adjuncts of analysis and polarization, in connection with the Dutch Standard are now generally employed in the sugar marts of the world.

Vacuum pans briefly described are close boilers or tanks, oval or pear shaped, of any size up to a boiler in which 50 or more tons of syrup may be grained or crystallized; it is virtually a finishing pan in sugar making as well as in refining sugar; steam passing through coils or worms of pipe in the closed tank, and the exclusion of outer air causes syrup to boil at a low enough temperature to form sugar crystals at pleasure; attached to the pan or tank are a syrup feeder, an overrun to catch grains of sugar that fly off in the vapor, a vapor condenser into which cold water spray is admitted and which has a long outlet pipe connected with a water tank having an overflow pipe; the boiling sugar is viewed through a glass bullseye in the side of the pan, to which is also affixed a testing tube.

By the use of the vacuum pan in sugar boiling and in refining sugar, the pressure of the atmosphere which comes in contact with the syrup when boiling in open pans, is reduced by exhaustion; boiling in vacuum-pans reduces the loss of material to the minimum of waste in handling, and prevents the formation of formic acid, which darkens boiling syrup and hinders crystallization; this acid is formed by the action of the oxygen of the outer atmosphere upon heated sprup.

Syrup may be concentrated in the vacuum-pan to the point of crystallization, and the strike be made when the crystals have begun to form, graining will continue in the receivers without further

evaporation until the crystals are formed; but both in making and refining sugar, in order to build up the crystals and obtain the greatest percentage of sugar from the charge of syrup, graining in the vacuum-pan is continued by the addition of fresh syrup, until the desired result is reached, when the strike is made.

Sugar is separated from the syrup or molasses by various methods of draining, and by the use of centrifugal machines; draining by putting melada into casks, tanks, or boxes pierced with holes to permit the syrup to escape while the sugar remains, is still practiced in sugar producing countries; conical moulds are also still used for the same purpose; other and more primitive methods of draining are practiced in producing countries where the knowledge of sugar making is crude and imperfect.

Centrifugal machines perform the work of separating sugar from syrup with dispatch, and are indispensable in making as well as in refining sugars, by such aid the tedious process of drainage is avoided, and separation accomplished in a few moments, the concentrated mass of sugar and syrup is placed in cylindrical baskets finely perforated, and fitted upon central shafts that are made to revolve swiftly, the rapid motion drives out the syrup, and leaves the sugar comparatively dry and pure in the baskets.

Molasses obtained by draining raw sugar, is reboiled, evaporated, inspissated, crystallized, and treated the same as the first product of syrup already described; the raw sugar thus obtained is called molasses sugar, and is equal in value to muscovado sugar for refining purposes; the molasses of commerce is drained from melada and is often extremely rich in sugar crystals.

Porto Rico molasses is especially rich in crystals of sugar. Cuban and Porto Rico molasses test from 48 to 60 in sugar crystals. The average test of the latter exceeds 54 and of the former 52 degrees in crystals, but it should be remembered that during transit and while waiting sale and shipment crystals of sugar are constantly forming in molasses drained from melada.

Molasses testing above 55 is more valuable for reboiling in this country to obtain the sugar than for consumption as molasses. Hence molasses boilers buy such molasses with avidity, and efforts have often been made to import syrup of sugar containing 70 to 85 per cent. of crystals as molasses in order to obtain the sugar by conversion without paying proper duty. The ease with which this fraud can now be detected, and the fact that when syrup of cane sugar is found entered as molasses it will be seized by the Government, renders the practice unprofitable.

The introduction of vacuum-pan boilers varies the old method of making sugar at the second or evaporating process as follows: The syrup, having been brought to the proper consistency, is run into receivers, thence run through filter bags or directly into subsiders, and from thence drawn into the vacuum-pan as required. Sulphur-

ous and sulphuric acid, quicklime, milk of lime and sulphurous gas are used in the manufacture of Demerara and Cuban crystals for the American market.

The process is delicate but simply a matter of skillful handling. If sulphurous acid is admitted to the boiling syrup in excess it not only discolors the mass but compels the free use of lime to correct the acidity. Thus the desired shade of discoloration is lessened or lost. Bisulphate of lime is also employed as a colorant for the same purpose, while sulphuric acid, muriate of tin, etc., are sometimes admitted to the syrup in the vacuum-pan and in centrifugals to give bloom or delicate straw color to yellow crystals intended for the London market.

Thus it will be seen that various articles employed to brighten sugars in the vacuum-pan will, when used in excess, darken the crystals. For instance, eight to ten quarts of diluted sulphuric acid to each ton of mass in the pan when injected upon formed crystals before the strike will give bloom to the crystals, while the admission of a greater per cent. of the acid, or too high a temperature when boiling, will discolor the sugar and endanger the strike by inverting more or less of the crystals.

More simple methods are also extensively employed in Cuba and Demerara to color vacuum pan crystals made to test from 93 to 99° in purity, but intended to evade Nos. 10 and 13 of the Dutch standard of our tariff; a favorite formula employed is, to every 600 gallods of juice add 4 to 5 pounds of lime in the defecator, and again use the same quantity of lime in subsiders for dark sugars, whereas only one half the quantity of lime is used for light sugars; the excess of lime retained in the syrup, discolors the crystals more or less throughout, during inspissation and graining.

Again, thoroughly clarified cane juice is evaporated in triple effects or in open pans, run into subsiders, and thence drawn into the vacuum pan for finishing; where the highest grade of crystals, say 95 to 99° in purity are required, and No. 10 or 13 D. S., the limit of color, crystals are fully formed and, just before the strike, the proper percentage of molasses impurities or caramel, or both, is admitted to the boiling sugar, and the pure crystals are outwardly colored to imitate raw sugars not above No. 7–10 or 13 D. S. in color as desired.

Molasses carefully run into the vaccum pan at intervals, after graining has progressed nearly to the desired striking point, produces a molasses crystal of great purity from 93 to 97°, but not above No. 10 D. S. in color, when skillfully manipulated. Great attention, excellent judgment, and superior skill, are the most essential elements in producing manufactured sugar crystals of the highest degree of purity, and of the requisite color to evade the payment of the full duty that would be properly levied in this country upon such sugars, if they were not discolored for this market to imitate raw material.

Unless tampered with at some stage of sugar making, properly clarified cane juice will yield light yellow crystals of any desired size in the vacuum pan, which equal 14 to 16 D. S. in color; after being purged in the centrifugals, these crystals will be of a natural color, equal to from 16 to 18 D. S., and test from 95 to 99° in purity; the duty on such sugars, when not above 16 D. S., would be $3.43¾ per 100 lbs., and when above No. 16 D. S. in color, the duty would be $4.06¼ per 100 lbs., hence the various foreign methods of discoloring a manufactured article of sugar of superior value, to imitate raw sugar material and evade duty.

Grocer's sugars are no longer made in Cuba and Demerara for this market; such sugars would test from 88 to 92° in purity, and be about 14 to 16 D. S., in color, the duty thereon would be $3.43¾ per 100 lbs. Grocer's sugars are not prohibited by the tariff, but by Cuban and Demerara crystals which test from 93 to 99° in purity, but although far superior in quality to grocer's sugars, they are colored down to 7, 10 or 13 D. S., and pay an average of less than $2.50 per 100 lbs. duty, thus prohibiting the importation of grocer's sugars.

The Carlisle and kindred uniform duty on sugar plans, whether at one cent or 2.40 cents per lb., are all framed to legalize the importation of Demerara crystals of highest purity, discolored to not above No. 13 D. S., at the lowest rate of duty, to the exclusion of raw sugar material; such crystals can be washed in centrifugals and then placed upon this market as high grade grocers sugars, with an immense advantage of duty evaded, to enrich the manipulators, such sharp tricks in legislation become dangerous and destructive to American industries and revenue, in practice.

Clearly, if there were no Dutch Standard of color in our tariff laws to evade, discolored vaccum-pan crystals would be unknown, and if Congress will authorize the use of the Polariscope and grinding the sugar, as adjuncts to the Dutch standard for levying duty, discolored crystals will no longer surreptitiously flood this market to the detriment of every American industry and interest connected with commerce, consumption, production, refining, and revenue, in their relations to the Sugar Question.

Artificial methods of finishing sugars are constantly practiced in sugar producing countries contiguous to the United States, to evade the color standard of our sugar tariff, and to control the market and sugar industries of this country; the No. 13 D. S. Sugar Bill, and other uniform duty plans, are efforts of foreign sugar producers in neighboring countries and their American allies, to secure a sugar tariff admitting semi-refined crystals as raw material, in order to prohibit the latter, control our market, destroy our sugar industries, and then oppress consumers.

The production of raw sugar in foreign countries injures no American sugar interest or industry; we depend upon foreign pro-

ducers for an adequate supply of raw material while home production is advancing, but the advancement of raw sugars beyond their normal condition, by the foreign producer with his coolie and slave labor adjuncts and devices of manufacture to evade our revenue laws, purposes the destruction of American producing and refining industries; these mastered, the cost of sugar to consumers will be enhanced by foreign producers, and American competition become suicidal.

Briefly stated, the refining process by boiling, evaporating, inspissating and graining cane syrup in vacuum pans, coloring the crystals, and purging the strike in centrifugals, has come to be regularly pursued in the principal sugar producing countries contiguous to the United States; in Demerara $\frac{3}{4}$ and in Cuba and the West Indies $\frac{2}{3}$ of the sugar is thus made; nothing but the necessity of conforming to the color standard of our tariff, in order to avoid the duty on refined sugar, prevents Cuban and Demerara producers from making their otherwise refined products of natural color from 15 to 20 Dutch Standard.

These abuses of our revenue laws by sugar producers in neighboring countries, have attained great magnitude; having subtly undermined our sugar producing and refining industries, and prepared the way for their destruction before creating public alarm; suspicions of foul play in years past, led the writer to rigidly investigate and publicly expose the methods of foreign sugar making and duty evasions, by which this Nation has long been victimized.

These exposures have already produced remarkably healthful, and mostly voluntary changes in the classification of sugars for duty, and consequent higher rates of duty and increase of revenue during the fiscal years ended June 30, 1880–1881, as will be seen in the following comparative table of classifications for duty of sugars, exclusive of melada, entered into consumption during the past six years, 1876 to 1881 inclusive:

Classification by the Dutch standard.	1876.			1877.			1878.		
	Quantity.	Value.	Duty.	Quantity.	Value.	Duty.	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*			*Pounds.*			*Pounds.*		
All not above No. 7 Dutch standard	534,822,824	$20,344,948	$11,654,445	757,946,855	$37,501,481	$16,580,087	860,287,182	$41,516,497	$18,818,781
All above No. 7 and not above No. 10 D. S.	869,785,687	36,593,778	21,628,822	604,317,151	29,748,890	15,107,929	618,019,876	33,232,883	16,450,497
All above No. 10 and not above No. 13 D. S.	150,107,868	6,543,106	4,092,846	88,462,336	4,371,003	2,488,003	72,316,574	4,110,502	2,033,904
All above No. 13 and not above No. 16 D. S.	6,127,732	318,830	207,593	4,536,195	218,913	155,932	1,474,118	73,831	50,673
All above No. 16 and not above No. 20 D. S.	1,011,458	58,045	40,107	92,477	6,182	3,757	561,068	35,491	22,793
All above No. 20, loaf, and other refined	24,976	2,003	1,248	32,840	2,590	1,642	216,294	16,866	10,814
Total dry sugar	1,561,880,545	63,860,710	37,625,061	1,455,387,854	71,849,089	34,337,350	1,552,875,112	78,986,070	36,387,463
Melada entered into consumption	96,751,914	3,151,183	1,813,354	49,650,354	1,923,427	930,914	36,691,376	1,383,482	687,963
Total sugar and melada	1,658,632,459	67,011,893	39,438,415	1,505,038,208	73,772,516	35,268,294	1,589,566,488	80,369,552	37,075,426

Classification by the Dutch standard.	1879.			1880.			1881.		
	Quantity.	Value.	Duty.	Quantity.	Value.	Duty.	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*			*Pounds.*			*Pounds.*		
All not above No. 7 Dutch standard	890,801,182	$36,627,477	$19,486,276	299,298,496	$11,394,541	$6,547,154	401,626,484	$15,395,744	$8,785,579
All above No. 7 and not above No. 10 D. S.	671,574,592	27,614,075	16,789,365	1,222,747,078	52,407,812	30,568,677	1,323,451,981	60,216,407	33,086,300
All above No. 10 and not above No. 13 D. S.	35,556,456	1,649,309	1,000,307	67,726,078	3,085,292	1,904,796	142,797,277	7,044,675	4,016,173
All above No. 13 and not above No. 16 D. S.	483,110	25,627	16,607	2,353,604	118,229	80,905	1,267,215	62,123	43,561
All above No. 16 and not above No. 20 D. S.	20,221	1,160	821	118,582	8,453	4,817	12,241	538	497
All above No. 20, loaf, and other refined	16,425	1,283	821	18,119	1,502	906	18,699	1,599	935
Total dry sugar	1,598,461,986	65,918,931	37,294,197	1,592,261,957	67,015,831	39,107,255	1,869,173,897	82,721,086	45,933,045
Melada entered into consumption	41,152,357	1,234,736	771,606	33,709,344	1,036,808	632,050	20,534,846	715,358	385,028
Total sugar and melada	1,639,614,343	67,153,667	38,065,803	1,625,971,301	68,052,639	39,739,305	1,889,708,743	83,436,444	46,318,073

1881. Duty on molasses and candy, $1,665,959. Grand total, $47,984,032, of duty from sugar and molasses.

Rates of duty per pound on dry sugar entered into consumption: 1876, 2.41 c.; 1877, 2.36 c.; 1878, 2.34 c.; 1879, 2.33 c.; 1880, 2.45 c; 1881, 2 46 c.

Average foreign cost per pound of dutiable sugars consumed: 1876, 4.08 c.; 1877, 4.93 c.; 1878, 5.08 c.; 1879, 4.12 c.; 1880, 4.20 c.; 1881, 4.42 c.

The assumption of Treasury Agents that the new methods of sampling and dry testing sugars, enforced by Treasury circulars of July 19 and September 2, 1879, have increased the revenue, is simply absurd; such methods change the texture of the merchandise and are illegal, irrational, and oppressive; they have only led to expensive and useless litigation, with the certainty of refunding duty thus obtained by force instead of law; higher duties are the inevitable result of the exposures referred to above.

Sugar cane is undoubtedly an indigenous product of China and India, by transition from whence its cultivation spread to Arabia, and later to tropical and semi-tropical countries, in many of which it now constitutes the principal source of agricultural prosperity, especially so in Cuba, Porto Rico, Demerara and other dependencies of Great Britain, France, Holland, and Spain, and in the Hawaiian and other islands of the Pacific ocean. Egypt, Mexico, and Brazil are sugar producing countries, and prodigious quantities of cane sugars are produced in India and in China.

The sugar yield from cane varies according to climate, culture, and crop handling. In Demerara, Cuba, Hawaii, Mauritius, and other favorable locations, when carefully cultivated, from 60 to 70 tons of cane have been raised to the acre, and from 5 to 6 tons of raw sugar per acre obtained therefrom. Careless culture often reduces the yield of sugar, exclusive of molasses, to less than a ton to the acre, but under proper cultivation and skillful handling an average of three tons of raw sugar to the acre of cane, exclusive of molasses, would be obtained in foreign cane sugar producing countries.

Southern portions of the United States produce sugar cane. In Louisiana, American enterprise and skill have made the cultivation of sugar cane and sugar making its chief source of prosperity and wealth, and, although the climate is less favorable than in Cuba, sugar production constitutes its principal industry. The sugar producing industries of Louisiana and other States, together with our refining industries, demand the maintenance of the same fostering governmental protection that is accorded to the cotton, coal, iron, wheat, wool and other prominent producing and manufacturing industries of this country.

Genuine and authentic information gathered by the writer from sugar producing countries, indicates that the annual cane sugar crop of the world exceeds 4,900,000 tons, and is produced approximately, as follows:

British India, tons	1,500,000	Manilla, Phillipine Islands	135,000
China, Hong Kong, etc.	1,000,000	Louisiana, Texas, etc	125,000
Cuba and Spanish poss.	750,000	Egyptian Provinces	75,000
Br. W. I., Demerara, etc	250,000	Peru, S. A.	75,000
Dutch India, Java, etc.	250,000	Hawaiian Islands	45,000
French W. I., Guiana, etc.	175,000	Mexico	35,000
Brazilian Empire	175,000	All other countries	160,000
Mauritius, Reunion, etc.	150,000		
		Total cane and sugar, tons	4,900,000

Added to the cane sugar crop of 1881 will be the beet sugar crop of Europe, about 1,700,000 tons, and minor crops of Maple, Palm, Beet, and Sorghum Sugars in this and other countries, estimated at 100,000 tons.

Total known and estimated sugar crop of 1881 :

Cane sugar	4,900,000 tons.	Maple, sorghum, etc.	100,000 tons.
Beet sugar, Europe.	1,700,000 tons.		
		Total sugar crop	6,700,000 tons.

Of this immense sugar crop, the people of this country now consume annually more than 1,000,000 tons of 2,240 lbs. the ton. Sugars were consumed in this county in the fiscal year ended June 30, 1881, as follows :

Dutiable sugars entered into consumption	1,869,173,897 lbs.
Dutiable melada " " "	20,534,846 "
Hawaiian sugars " " "	76,909,207 "
Total imported dutiable and free sugars consumed	1,966,617,950 lbs.
Add domestic cane sugars, Louisiana, Texas, etc.	200,000,000 "
Maple, beet, and sorghum sugars	75,000,000 "
Annual consumption in the United States	2,241,617,950 lbs
Total consumption of sugar in the United States, per capita, in 1881,	44.83 lbs.

England abolished the duty on sugar in 1874, with an annual consumption of 59.40 lbs. per capita; in 1876 England consumed only 58.39 lbs. per capita, and in 1877 only 56.66 lbs. per capita; the normal increase of consumption in England since 1874, has been from 59.40 lbs. in 1874 to 62.25 lbs. per capita in 1879–1880, or only 2.85 lbs. per capita since 1874, when duty on sugar was abolished.

A reduction of duty to one cent per pound, or even the abolition of duty on sugar, cannot materially increase consumption in this country more than in England, simply because the minimum foreign cost of producing has been reached, and such a course would only enhance prices in producing countries, in the ratio of any reduction of duty.

The more refined tastes and advanced requirements of American consumers, now demand that imported sugars shall be refined in this country. We refine raw sugars for half the cost of refining them in foreign producing countries, aside from the manifold profits which Cuban and Demerara crystal makers and colorers obtain from us, by semi-refining raw sugars and evading duty.

American refiners also accurately comprehend the varied wants of the poor and the rich, and can currently provide for them pro rata to the ability of the different classes to satisfy their food necessities, and gratify their appetites for pure and wholesome sugar food. Inasmuch as Cuba seems bound to semi-refine her raw sugars,

these indispensible national requirements can only be met by home production, and by drawing supplies of raw sugar material from remote sugar producing countries, and by levying duty thereon pro rata to their actual foreign market value in the sugar producing countries of their purchase and shipment.

Furthermore, the encouragement of importations of raw sugar material from remote sugar producing countries, is a most healthful means of increasing our commerce with those countries, including exports of domestic merchandise thereto; payments for raw sugar material purchased in remote countries may be made in American merchandise; no such advantage is afforded us in our purchases of sugar from Cuba and other Spanish possessions.

Comparing the importations of sugar and melada from Cuba and Spanish possessions, with those from all other countries in the fiscal years ended June 30, 1879, 1880, 1881, the following exhibit, taken with the previous tabular grouping of sugar producing countries, in most of which only raw sugar material is produced, furnishes matter for the consideration of Congress, consumers and taxpayers, producers and refiners.

Sugar and melada importations, invoice entries from Cuba and Spanish possessions, and from all other countries, including Hawaii, in the fiscal years ended June 30, 1879, 1880, 1881:

1879. Imports.	Pounds.	Value.	1880. Pounds.	Value.	1881. Pounds.	Value.
Cuba and Spanish Poss.....	1,522,432,223	$59,150,935	1,339,271,157	$58,444,984	1,308,948,660	$60,173,853
From all other Countries.....	311,933,613	12,927,753	490,029,527	21,591,884	560,889,298	21,559,103
Total Importations.....	1,834,365,836	$72,078,688	1,829,300,684	$80,036,868	1,869,837,958	$81,732,956

Average foreign cost of imported sugars and melada per 100 lbs., according to declared or invoice values in 1879, 1880, and 1881:

	1879.	1880.	1881.
Cuba and Spanish possessions	$3.88	$4.37	$4.60
Hawaiian sugar duty free	6.74	6.72	6.40
All other countries	3.74	4.07	3.84

Paying Cuba, Demerara, and the West Indies, through American agents, extra prices for sugars doctored to evade our tariff, and legislating a uniform duty on sugar to further enrich them, while remote sugar producing countries are anxious to supply us far cheaper with an abundance of the raw sugar material we require, and will gladly take American merchandise in payment therefor, neither conduces to our industrial prosperity nor to the welfare of consumers, and commerce with remote countries.

SECTION SECOND.

Hawaiian Sugars versus Dutiable Sugars—Perniçious Results of the Reciprocity Treaty—Impending Dangers of Annexation—As Related to Consumption and Commerce, American Industries and Revenue.

The results of admitting sugars from the Hawaiian Islands duty free, while all other imported sugars are subject to duty, present an interesting exhibit of a condition analagous to that of reducing the present duty on foreign made crystals or centrifugal sugars, and increasing the duty on raw sugar material, as proposed by advocates of a uniform one cent or more per lb. sugar plan, and the Carlisle Sugar Bill.

Under the Hawaiian Reciprocity Treaty, the Sandwich Islands have ceased to send low grade sugars to this country; their cane juice is now mostly manufactured into high grades of semi-refined sugars for this market; the Hawaiian Treaty deprives us of low grade raw sugars, of the duty from the higher grades the Islands now send us at enhanced prices, and of the industry thus transferred from this country to Hawaii.

This process of prohibition of raw sugar material, is also practiced in Cuba and Spanish possessions, and in Demerara and the West Indies, with dutiable sugars, by coloring crystals in making sugars for this market, to evade duty; practices which Carlisle's Bill, the No. 16 plan, the No. 13 D. S. and 85 test bill, and the one cent per lb. duty plan, are simply designed to legalize; the following tables present the facts in relation to our losses by the Reciprocity Treaty.

Table No. 1.—*Dutiable Hawaiian Sugars* entered into consumption in the fiscal years ended June 30, 1874, 1875, 1876, prior to the Reciprocity Treaty admitting Hawaiian Sugars Duty Free:

Year.	Dutiable Sugars.	Value.	Cost per lb.	Average Grade.
	Pounds.	*Dollars.*	*Cents.*	
1874	13,575,674	740,786	5.45	No. 7 to 10 D. S.
1875	17,888,000	938,676	5.24	No. 7 to 10 D. S.
1876	20,978,374	1,051,987	5.01	No. 7 to 10 D. S.
Total	52,442,048	2,731,449	Av. 5.2	Av. 7 to 10 D. S.

Table No. 2.—Hawaiian Sugars entered into consumption free of duty in the fiscal years ended June 30, 1877, 1878, 1879, 1880, under the Reciprocity Treaty admitting Hawaiian Sugars Duty Free:

Year.	Free Sugars.	Value.	Cost per lb.	Average Grade.
	Pounds.	*Dollars.*	*Cents.*	
1877	30,685,142	2,112,270	6.88	Above No. 13 D. S.
1878	30,368,328	2,274,430	7.49	Above No. 14 D. S.
1879	41,693,069	2,811,192	6.74	Above No. 13 D. S.
1880	61,556,324	4,135,486	6.72	Above No. 13 D. S.
Total	164,302,863	11,333,378	Av. 6.90	About No. 14 D. S.

The Reciprocity Treaty deprived us of Hawaiian low grade sugars in a single year, and increased the foreign cost of Hawaiian sugars from 5 cents per pound in 1876 to 6.88 cents per pound in 1877 or $1.88 per 100 pounds. The average cost of Hawaiian sugars during 1874, 1875 and 1876, when duty was levied thereon, was $5.20 per 100 pounds, and their average cost during 1877, 1878, 1879 and 1880, under the Reciprocity Treaty, was $6.90 per 100 pounds, or $1.70 per 100 pounds against American consumers, to which must be added the loss of duty on 164,302,863 pounds of Hawaiian sugars consumed in 1877, 1878, 1879 and 1880, valued at $11,333,378, amounting to about 62.50 per cent of their value, or $7,083,361.

The increased cost of Hawaiian sugars and the exclusion of low grades of Hawaiian sugars are significant facts. The consumption of dutiable Hawaiian sugars imported in the fiscal year ended June 30, 1868, was as follows:

Year.	Sugars.	Value.	Cost per lb.	Average Grade.
1868	18,241,142 lbs.	$956,909	5.24 cts.	No. 7 to 10 D. S.

This exhibit for 1868 coincides with the exhibit for 1874, 1875 and 1876, as presented above, and agrees substantially with the intervening years, 1869 to 1873 inclusive, as regards price and grade.

During four years, 1868, 1874, 1875 and 1876, the largest quantity of sugar entered for consumption from the Hawaiian Islands was in 1876, the next in 1868, the next in 1875 and the smallest quantity imported was in 1874. Total for the four years, 70,683,190 pounds, or an average of 17,670,797 pounds per year, costing only $5.20 per 100 pounds.

No sooner were Hawaiian sugars admitted duty free than we received, in 1877, 30,685,142 pounds of Hawaiian sugars of an average grade above No. 13 D. S. costing 6.88 cents per pound against 20,978,374 pounds of dutiable sugars received in 1876, of an average grade No. 7 to 10 D. S., costing only 5.01 cents per pound.

In the years 1877, 1878, 1879, 1880, under the Reciprocity Treaty, we find the Hawaiians sending us 164,302,863 pounds of sugar, in color above No. 13 D. S., costing in Hawaii $6.90 per 100 lbs; an annual average of 41,075,716 pounds under the treaty, against 52,442,048 pounds of sugar averaging 7 to 10 D. S., and costing $5.20 per 100 lbs., imported from the Hawaiian Islands in the three years, 1874, 1875, 1876. prior to the Reciprocity Treaty; an annual average of only 17,480,682 pounds.

Under the Reciprocity Treaty we can no longer obtain the low grade raw sugar material formerly produced in the Sandwich Islands, which we did obtain prior to said treaty; a similar condition in regard to dutiable sugars must inevitably follow the adoption of any uniform specific duty on sugar, whether to No. 10, No. 13, No. 16, D. S., or on all sugars, because the industry of semi-refining abroad is encouraged and protected by any uniform tariff, just as by admitting Hawaiian sugars duty free, the grades thereof have been raised and raw material prohibited.

Table No. 3.—Classifications of Hawaiian Sugars entered into consumption in the fiscal years ended June 30, 1878, 1879, 1880 under the Dutch standard:

Classified D. S.	1878. *Pounds.*	1879. *Pounds.*	1880. *Pounds.*
Above No. 7 not above No. 10	2,437,920	8,174,146	7,793,349
Above No. 10 not above No. 13	10,805,283	16,615,686	28,416,596
Above No. 13 not above No. 16	12,227,780	15,670,564	23,868,886
Above No. 16 not above No. 20	4,897,345	1,232,673	1,477,493
Total consumed	30,368,328	41,693,069	61,556,324

Table No. 1 shows that prior to the Reciprocity Treaty, sugars entered for consumption from Hawaii were officially classified for duty as averaging about No. 8 D. S. in color, and cost $5.20 per 100 lbs. in the market of production.

Table No. 2 shows that, since the enforcement of the treaty, the average classifications of free sugars were in 1877, 1878, 1879, 1880, above No. 13 D. S. in color, and their average foreign cost $6.90 per 100 lbs; thus the industry represented by $1.70 per 100 lbs. increased foreign cost of free sugars amounting in the four years named to $2,793,148 was diverted from this country to Hawaii, in addition to the duty lost by the Reciprocity Treaty.

In plain language, during the fiscal years 1878, 1879, 1880 the people of this country consumed Hawaiian sugars to the amount of $9,221,108; paying $2.55 per 100 lbs. more than sugars cost us in all other cane sugar producing countries, besides losing $5.753,191, duty on sugars imported duty free from Hawaii in the years named, while we could only sell $5,957,130 worth of domestic merchandise to Hawaiians in the same period of time.

The account stands as follows for the three fiscal years ended June 30, 1878, 1879, 1880, as regards the quantity and value of Hawaiian

sugars consumed, duty thereon lost at 62.50 per cent. ad valorem, and total domestic merchandise exported to Hawaii under the treaty in the years named:

Year.	*Hawaiian Sugars.*	*Foreign Value.*	*Duty Lost.*	*Dom. Mdse. to Hawaii.*
1878	30,368,328 lbs.	$2,274,430	$1,421,518	$1,683,446
1879	41,693,069 lbs.	2,811,192	1,756,995	2,288,178
1880	61,556,324 lbs.	4,135,486	2,574,678	1,985,506
Total	133,617,721 lbs.	$9,221,108	$5,753,191	$5,957,130

Average price paid for sugar in Hawaii, three years, per 100 lbs., $6.90.
Average price paid for sugar in other countries, 1880, per 100 lbs., $4.20.

In three years, 1878, 1879, 1880, we thus threw away $5,753,191 sugar duty, paid $2.70 per 100 lbs. extra price for sugars, and paid a cash balance over and above our $5,957,130 exports of merchandise to Hawaii of $3,263,978 for the single article of sugar; the loss of duty on Hawaiian sugars in 1881 also largely exceeds the value of our exports to the Hawaiian Islands, as I shall presently prove, while the importation of Hawaiian sugars, duty free, only serves to injure home production and enhance the cost of refined sugars to consumers in California and sections of country contiguous to our Pacific coast.

The temptation to buy low grade raw sugars in China, Hong Kong, and adjacent countries, and land them at Hawaii to be clayed or semi-refined in vacuum-pans and re-shipped thence to this country as Hawaiian sugars, duty free, is not only seemingly irresistible, but the opportunity is supplied by the reciprocity treaty between the United States and the Kingdom of Hawaii.

Hon. James M. Comly, U. S. Minister at Honolulu, says:

"While (1880) the Hawaiians have exported large quantities of rice to us, paying no duty, they have imported and bonded 1,716,160 pounds of an inferior article for use on the plantations. Owing to representations from this legation, producers of Hawaiian rice are required to authenticate its nativity previous to exporting it to the United States as Hawaiian product." China figures largely in Hawaiian commerce, and sugar presents far greater speculative allurements than rice, while the Reciprocity Treaty and the Kingdom of Hawaii furnish a medium for illicit sugar traffic with this country.

Sheltered by the treaty, Hawaiian sugar producers not only manufacture their entire sugar product into grades averaging above No. 13 D. S. for this market, but mysteriously supply themselves with a large amount of raw sugar material in excess of local production hitherto claimed. China and Manilla sugars might readily be imported and manufactured into higher grades for shipment to the Pacific coast, duty free. Such practices would quickly be prevented if Hawaiian sugars were made dutiable.

Extend the Hawaiian treaty to all foreign sugar producing countries, or even the uniform duty methods, and the supply of low grade raw sugars would rapidly decrease, which would increase the foreign value of raw material, because all raw material would be consumed in the foreign manufacture of vacuum pan centrifugal crystals and other high grade sugars for this market. Protected by the Carlisle bill and reciprocity, Cuban and Demerara crystals, and Hawaiian free sugars, would certainly prohibit the importation of raw sugar material and increase the cost of sugar food in this country.

Abundant evidence exists that the adoption of the Hawaiian Reciprocity Treaty of 1875 was, by experts, deemed to be a legislative blunder, presaging danger to American sugar producing end refining industries, menacing consumers with enhanced prices, and dealing treacherously with all other sugar producing countries, upon whose sugars, when sent to this country, large duties are levied, while sugars from the Hawaiian or Sandwich Islands, are admitted duty free.

Instance the following protest of San Francisco sugar refiners, against a Reciporocity Treaty with Hawaii, sent in March, 1875, to Representative Luttrell, in Washington, for presentation to Congress; the solicitude of signers of this 1875 protest in regard to the interests of Eastern refiners and Louisiana planters, is quite refreshing in view of the advantages since taken of this treaty blunder. The protest was as follows:

The undersigned, refiners of the Pacific coast, respectfully direct your attention to the following additional, and, in our opinion, cogent reasons, why the Reciprocity Treaty with the Hawaiian Kingdom should not receive the sanction of the United States Senate. The capacity of the Islands to produce sugar has not been sufficiently explained. Undoubtedly authorities state positively that the Islands are capable of producing annually not less than 150,000,000 pounds, or 80,000,000 pounds more than the entire yearly consumption of the Pacific coast, including all the States and Territories west of the Rocky Mountains. Under the action of reciprocity, this vast amount of sugar would find its way to San Francico, and completely shut out imports from all other producing countries. Of the 150,000,000 pounds the Islands would furnish yearly, this coast would probably not take more than 30,000,000 pounds for domestic consumption, and the balance would find its way east, where it would materially interfere with the interests of Eastern refiners, and those of the Southern planters, coming in direct competition with them, duty free. The average duty now paid on Hawaiian sugars is $2\frac{1}{2}$ cents per pound, equal to $3,750,000 per year, which, under the present financial condition, is more than the Government can properly sacrifice for the benefit of a foreign people, particularly as that amount would have to be made good by the imposition of taxes on our people.

Sugar can grow with great luxuriance at an altitude of 3,000 feet in the Sandwich Islands, and it is an indigenous plant. If the whole area susceptible of being cultivated with sugar cane were laid under contribution for that purpose, and, in the event of reciprocity, such would be the result, the annual yield would considerably surpass 150,000,000 pounds. Even now the Island planters produce and send to our market sugars ranging from seventeen to twenty-two Dutch standard, which are as good as our own second grade refined sugars, and, although they are not filtered through charcoal, are so superior that we cannot compete with them except by means of our higher grades. It has been the policy of our Government to furnish a reasonable degree of protection to domestic industries, manufacturing, products of the soil,

beet sugar, &c., and we trust the sugar interest of the country will not be made an exception. It is evident that the introduction of sugar, duty free, a greater portion of which would be forced on the Eastern market, could not fail to work injuriously against the interests of Eastern refiners and Southern planters, as well as those of the Pacific coast refiners. Should the consideration of overshadowing national requirements render it politic to sanction reciprocity, we earnestly trust the treaty will be so framed as to exclude from importation, duty free, all sugars of higher grades than thirteen, Dutch standard, especially as such interdict could not work prejudicially to planters of Hawaii. It is obvious to us that the adoption of the Reciprocity Treaty without such restrictions would destroy the most important interests of this coast, and at the East, which represent millions of capital, and give employment to thousands of skilled workmen, an event which would prove a serious impediment to such industries. Hawaiian producers would have us completely at their mercy, and the great body of American consumers would be compelled to pay more for an article of absolute necessity.

Trusting that this presentation of facts will receive the attention they merit at your honorable hands, we are most respectfully your obedient servants,

C. SPRECKELS, *President California Sugar Refinery;*
N. LUNING, *President Pacific Sugar Refinery;*
M. EHRMAN, *Manager Golden Gate Sugar Refinery;*
HERMAN MEESE, *President Bay Sugar Refinery.*

Notice the inevitable sequence of admitting Hawaiian sugars duty free, in its relation to the above protest; the leading signer of the protest of 1875 against a Treaty of Reciprocity with Hawaii, has become the leading advocate of its continuance, and is producing Hawaiian sugars to be admitted to his San Francisco refineries duty free; his capital, brains, efforts, and skill, are lavishly expended in forcing the sugar producing powers of the Sandwich Islands for such purpose.

No sooner was the treaty ratified in 1876, than Mr. Claus Spreckels, the leading protester against the Reciprocity Treaty, went to the Hawaiian Islands and bought and leased 26,000 acres of land in the Island of Maui, sent to England for 750 tons of boiler plate iron, made it into pipes, and brought water 40 miles for irrigation, at a cost of a million of dollars; the protest was an oversight; utilizing the treaty was sharp practice.

Spreckels' treaty venture produced 500 acres of sugar cane in 1879; 2,750 acres in 1880; and the area planted in cane has been extended in 1881 to about 4,750 acres; the first yield from the Spreckels' plantation cane, averaged five tons of sugar to the acre; clearly this enterprising protester intends to make good the words of his protest, in regard to Eastern refiners and Louisiana planters, while oppressing Pacific coast consumers.

Again, the leading signer of the above protest, who, in 1875, declared that the treaty could not fail to injure Eastern refiners and Southern planters, is now working injury to consumers of sugar on the Pacific coast, Eastern refiners, Southern planters, and revenue interests, to subserve the interests of the powerful monopoly, established by consolidating Pacific coast refineries with the immense sugar plantations and sugar making establishments acquired by Spreckels & Company for such purpose, in the treaty favored islands of Hawaii.

Thus the leading signer of the above protest against the admission of Hawaiian sugars duty free has, with others, taken advantage of its pernicious provisions, and become the leader of gigantic operations in sugar food, which, in addition to depriving the nation of revenue without rendering any equivalent, place consumers of sugars on the Pacific coast under tribute, rendered obligatory by prohibiting Eastern refined sugars.

American capitalists and extensive refiners of sugar in California, in co-operation with Hawaiian producers of sugar, control the sugar trade of Hawaii, and through this control of free sugars, also regulate prices of refined sugars to consumers on the Pacific coast, keeping them as high as possible without admitting refined sugars from the Atlantic States in quantities sufficient for successful competition against free sugars refined in California.

Monied influences have coerced and subsidized the carrying trade of California, until the freight on sugar from the Eastern States has been raised to prohibitory rates, thus giving the Pacific and Hawaiian sugar monopolists at least $2.50 per 100 lbs. duty saved, and $2.00 per 100 lbs. freight from the Atlantic coast to California, or $4.50 per 100 lbs. advantage over Louisiana planters and Eastern importers and refiners of dutiable sugars; of which enormous profits, not a fraction goes to cheapen sugar or benefit consumers of sugars on the Pacific coast.

While every available acre of land in the Hawaiian Islands is being planted with cane, and gigantic sugar factories fitted with the best modern machinery, including vacuum pans and centrifugals, have been and are being erected under the benign protectorate of the Reciprocity Treaty, the United States have not even supplied the machinery for Hawaiian plantations; England and Scotland have furnished the machinery for which this country footed the bills. Pacific coast monopolists alone are enriched under the treaty.

Tables 1, 2, and 3 in this exhibit show the sum of sugar duty lost and the shallowness of the reciprocity pretense from 1876 to June 30, 1880. The exhibit for the year ended June 30, 1881, is still worse. For the fiscal year ended June 30, 1881, compared with 1880, in regard to the quantity and value of Hawaiian sugars entered for consumption, duty thereon lost at 62.50 per cent. ad valorem, and the total value of domestic merchandise exported to the Hawaiian Islands under the treaty in the same time, the exhibit is as follows:

Year.	*Hawaiian sugars consumed.*	*Foreign Value.*	*Duty lost § per cent. ad val.*	*Domestic Exports to Hawaii.*
1880	61,556,324 lbs.	$4,135,486	$2,574,678	$1,985,506
1881	76,909,207 lbs.	4,927,021	3,079,388	2,694,583
Total	138,465,531 lbs.	$9,062,507	$5,654,066	$4,680,089

Average foreign cost of Hawaii sugars per 100 pounds, 1880, $6.72; 1881, $6.40.

The classification of Hawaiian sugars in 1880, 1881, were as follows:

Class, Dutch Standard.	1880.	1881.
Above No. 7 not above No. 10	7,793,349 lbs.	5,373,005 lbs.
" " 10 " " No. 13	28,416,596 lbs.	28,486,589 "
" " 13 " " No. 16	23,868,886 lbs.	43,049,613 "
" " 16 " " No. 20	1,477,493 lbs.	
Total Hawaiian sugars	61,556,324 lbs.	76,909,207 "

Summing up for the fiscal year ended June 30, 1881, we find that the United States purchased Hawaiian sugars valued in Hawaii at $4,927,021, and admitted them free of duty, at a loss of 62.50 per cent. ad valorem thereon of customs revenue, or $3,079,388 of duty thrown away, and only managed to sell $2,694,583, total value of domestic merchandise exported to the Hawaiian Islands in the same year, or $384,805 less than the loss of sugar duty alone.

Further, we also see that the sugars thus exempted from duty are mostly semi-refined grades which average, according to the official classifications in 1881, above No. 13 to not above No. 16 D. S. in color, and that we paid $6.40 per 100 lbs. for sugars in Hawaii, while the average cost of sugars entered for consumption from all other sugar producing countries was only $4.42 per 100 lbs. in the same fiscal year.

The abolition of duty on Hawaiian sugars has, in five years, deprived us of more than ten millions of dollars of customs revenue, and enormously advanced the foreign cost of the sugars we exempt from duty; the treaty also deprives us raw material, which is advanced to high grades in Hawaii at the expense of American industries; the grades of sugar now imported from Hawaii, are equal in quality to and cost in Hawaii more than the best Cuban and Demerara vacuum-pan crystals testing 95 to 99.5° in purity, while they average above No. 13 D. S. in color in 1881, as seen above.

Rapid strides are making in Hawaiian sugar production, and in the manufacture of high grades of sugars, under the auspices of the Reciprocity Treaty, in striking contrast to the otherwise backward industrial condition of the Kingdom of Hawaii. The increased influx of free sugars from Hawaii has been as follows: 30,368,328 lbs. entered into consumption in the year ending June 30, 1878, 41,693,069 lbs. in 1879, 61,556,324 lbs. in 1880, and 76,909,207 lbs. in 1881; at least 100,000,000 of lbs. will enter duty free in 1882; with a loss of duty thereon of $4,000,000.

Eastern refiners, Louisiana planters, and projectors of beet and sorghum sugar industries may well view the extent of the injuries inflicted upon their legitimate industries by the Hawaiian Treaty with consternation; having already shut out Eastern and Southern

competition in sugars from the Pacific coast, it will not be long before the rapidly increasing sugar product of the Hawaiian Islands will crowd the Eastern markets with duty free sugars, to unsettle the prices of sugar food and check consumption and home production effectually.

Instance the following comparative exhibit for 1881 of dutiable sugars *versus* Hawaiian free sugars; there entered into consumption in the fiscal year ended June 30, 1881:

Dutiable dry sugars, 1,869,173,897 lbs., foreign average cost per 100 lbs.	$4.42
Hawaiian free sugars 76,909,207 " " " " " " "	6.40
Duty received from dutiable sugars in 1881	$45,933,045
Duty lost on Hawaiian sugars in 1881	3,079,388

While levying duty upon the great volume of cheaper sugars received from all other sugar producing countries, there is nothing rational in thus exempting the higher priced sugars of Hawaii from duty.

Consumers of sugars on the Pacific coast are simply swindled by the Hawaiian Treaty; merchants in San Francisco, Sacramento, Portland, and other places on the Pacific coast were compelled to pay an average of $12\frac{1}{2}$ cents per lb. for crushed sugars, from January to December, 1881, while the same refined outturn from Hawaii sugars was being sold to merchants in Denver, Santa Fe, and Kansas City at $9\frac{1}{2}$ cents per lb. for crushed sugars, and lower grades pro rata; that is, Pacific Coast consumers pay 3 cents per lb. more for Spreckels' duty free sugars than Spreckels sells the same sugars for to more Eastern cities reached by Louisiana planters and Eastern refiners.

Furthermore, the price of crushed sugars refined from Hawaiian duty free sugars in San Francisco was $12\frac{1}{2}$ cents per lb. November 5 last, while the price of crushed sugars refined from dutiable sugars in the East was $10\frac{1}{4}$ to $10\frac{3}{8}$ cents per lb. in New York on the same date; the price of Golden C sugars refined from duty free sugar in San Francisco was $10\frac{3}{4}$ cents per lb. November 5, while similar grades sold in New York on the same day at $8\frac{3}{8}$ to $8\frac{5}{8}$ cents per lb.; what avails this to Pacific coast consumers, when the freight on sugar from Louisiana and the East to San Francisco, which was twenty dollars per ton in 1880, has been raised to forty dollars per ton in 1881.

Instead of cheapening refined sugars on the Pacific coast, or even conforming to Eastern prices of similar refined outturn from dutiable sugars, the Spreckels free sugar dynasty have prohibited grocer's sugars, and advanced prices of refined grades to consumers in California two cents per pound beyond the Eastern market, maintaining exorbitant prices by prohibitory rates of freight on sugars from the East, buying and coercing Pacific railroad freight agents to double the California rates of freight on Eastern sugars in a single year, as already shown.

What more reliable evidence of the rascally abuses of the Hawaiian Treaty is required than the fact that at this writing, January, 1882, there is a Claus, Spreckels & Co. "ring" of interested leaders and employes in Washington, having unlimited means, who are seeking to prevent the abrogation of this Hawaiian treaty monstrosity, failing in which they are instructed to push annexation of the Hawaiian Islands to this country, as a means of perpetuating the outrages now perpetrated upon consumers of sugar on the Pacific coast and upon American sugar industries simply to enrich the "ring."

Should this Spreckels "ring" succeed as a precedent, this Nation would soon become a general hospital for the support of semi-defunct countries and petty kingdoms, and reciprocity with such would be forced upon the people of this country with terrors of annexation staring them in the face whenever a "ring" of interested capitalists see their way clear to enrich themselves by the method of robbing the people and destroying American industries, now practised and sought to be perpetrated by the Claus, Spreckels dynasty.

What better than reciprocity with Hawaii, is annexation with Hawaii? Of the two dread evils the present treaty is least. Why should the senseless and unprofitable treaty burden already borne by the United States and constantly increasing, at a cost of millions of dollars per annum of direct loss to the revenues of this nation, and of millions of dollars per annum more to the industries of this country, be saddled upon the American people forever by annexation, only to enrich a dozen speculators.

The Hawaiian Islands do not and can never repay the current cost of their support by this Government; individuals only will be enriched in any event. This nation now sustains the so-called kingdom of Hawaii under the guise of reciprocity of trade, the results and costs of which are set forth in the tables in this exhibit. This condition we can escape by abrogation or by terminating the treaty by due notice. Experience and wisdom teach this nation to beware of annexation with its countless evils and burdens, which we cannot escape.

Annexation would bankrupt the native Hawaiian sugar planters, to whom Spreckels & Co. have made large cash advances upon plantation and machinery mortgages, and agreements with Spreckels that he should handle their crops. Hawaiian planters predicated such transactions upon high prices of sugar under a continuance of the treaty, abrogation of which would still leave them in possession; but annexation and the application of United States laws would open upon the Hawaiian Islanders the jaws of destruction, by foreclosures and the influx of Spreckel's "ring" capitalists.

The Hawaiian Reciprocity Treaty cannot be abrogated too soon; far better and cheaper for this nation to donate a trifle to the Ha-

waiian Islands as a matter of charity, and levy duty on their sugars, than to continue in any form or manner the annual payment of the enormous sugar bounty tribute now levied upon American consumers, sugar industries and revenue, by said treaty, simply for the support of the kingdom of Hawaii, and the enrichment of the Spreckels dynasty.

Taking the sums total of Hawaiian merchandise entered for consumption in this country, exports of domestic merchandise to the kingdom of Hawaii, the proportion in value of sugars entered for consumption, and the loss of duty on sugars alone, at 62.50 per cent. ad valorem, under the treaty in the five fiscal years ended June 30, 1877, to June 30, 1881, inclusive, the exhibit is as follows, sugar constituting 90.81 per cent. of the total consumption of Hawaiian merchandise:

Total Imports consumption.	Total Exports dom. mdse.	Total Sugars consumed.	Loss of Duty on sugar alone.
$17,905,365.	$9,761,142.	$16,260,399.	$10,162,749.

Such are some of the evil results of the Hawaiian Reciprocity Treaty that demand its ending; they assimilate the evils projected in the Carlisle sugar bill, the mixed duty or Boston plan, and all other uniform duty to 13 or 16 D. S. plans, which, by favoring centrifugals and prohibiting raw sugars, subtly provide extraordinary facilities for building up Cuban and other foreign vacuum-pan crystal making, coloring, and refining industries, to the detriment of American consumers and taxpayers, and upon the ruins of American sugar productive and refining industries.

The Hawaiian Treaty continues seven years from September, 1876, "and further until the expiration of twelve months after either of the high contracting parties shall give notice to the other of its wish to terminate the same," but inasmuch as the terms of the Treaty as regards sugar, have been continually violated, and for other potent reasons, Congress should not hesitate to cancel the Treaty and prevent annexation.

The Treaty of 1875 with Hawaii exempts only, "muscovado, brown, and all other unrefined sugar, meaning thereby the grades of sugar heretofore commonly imported from the Hawaiian Islands, and now (1875) known in the markets of San Francisco as Sandwich Island sugars;" but the treaty does not exempt the Hawaiian semi-refined high-grade vacuum-pan sugars, which now claim free entry as raw sugars.

Every pound of foreign sugars imported into this country should be made dutiable, and pay duty pro rata to the intrinsic color, grade, quality, and foreign value thereof, accurately determined by grinding, polarization, and the Dutch standard, and by comparisons with trade valuations in the foreign market and in the home

market, applying impartially any or all of these tests as occasion may demand.

With the above named adjuncts to the Dutch standard in operation on all sugars, including Hawaiian, and a simple amendment to the present sugar tariff hereinafter subjoined, false classifications and evasions of duty would abate, the rights of American consumers of sugar would be respected, and home productive and refining industries and revenue interests would be efficiently protected.

SECTION THIRD.

Comparative Sugar Tariff Analyses; Carlisle's Sugar Bill; Uniform Duty Plans; Present Sugar Tariff; Ad valorem and Compound Equivalents; Canadian Sugar Tariff Examples; Classifications Improved; Refining in Bond; Tariff Defects; Amendment and Remedies.

The within estimates of the average foreign cost of sugars, are approximate deductions from private and official information currently received from sugar producing countries by the writer, and from prices current in 1880 and 1881, in contiguous and remote sugar producing countries; as a basis of average foreign market values, they are applied alike to the present sugar tariff, the Carlisle bill, the uniform duty to No. 16 D. S. plan, and the whole tabular exhibit, and are, therefore, correctly equitable.

The following table exhibits the animus of the Carlisle sugar bill, and the uniform duty to 16 D. S. plan. Estimated average cost and duty on 100 pounds:

Table 1.

Class Average, D. S.	Average Cost.	Test Range.	Average Duty.	Rate Ad val.	Carlisle plan, Ad val.	Uniform $2.00 to No. 16 D.S.
					$2.40 to No. 13	
Melada	$2.50	62 to 70	$1.87½	75.0	96.0 per ct.	80.0 per ct.
Sugar not above 7 D. S.	3.50	70 to 85	2.18¾	62.5	68.6 "	57.0 "
Above 7, not above 10	4.62½	85 to 92	2.50	54.0	51.9 "	43.2 "
Above 10, not above 13	5.25	88 to 98	2.81¼	53.5	45.7 "	38.0 "
					$2.75 to No. 16	
Above 13, not above 16	6.12½	92 to 99	3.43¾	56.1	44.9 per ct.	32.6 "
					$4 above No. 16	*$4 above No. 16*
Above 16, not above 20	6.50	93 to 99	4.06¼	62.5	61.5 per ct.	61.5 per ct.
Soft above 20	7.50	94 to 99	5.00	66.6	53.3 "	53.3 "
Hard above 20	8.50	95 to 99.5	5.00	58.8	47.0 "	47.0 "

Uniform duty of one cent per pound, would present the ad valorem unfairness contained in the two cents per pound plan as seen above; for instance, one cent per pound would be an ad valorem rate of 40 per cent. on Melada, 28½ per cent. on class not above 7 D. S., 21.6 per cent. on class not above 10 D. S., 19 per cent. on class not above 13 D. S., and 16.3 per cent. on class not above 16 D. S.; while such a wholesale reduction of duty would be a blunder destructive to every American industry and interest connected with sugar food, as will be proven hereinafter.

Sugar bills, imposing a uniform duty on all sugar not above No. 13 D. S., have the appearance of, and claim to be, artless means of settling the sugar question and simplifying the collection of sugar duty; in reality they are subtle artifices for the prohibition of raw sugar material; for the protection of foreign producers of refined sugar crystals decolorized outwardly to not above No. 13 D. S., in color; for the encouragement of sugar refining in producing countries, and especially for the enrichment of their projectors at public cost.

Table No. 1 presented above, exhibits the animus of both the Carlisle bill and the uniform duty on all sugar to No. 16 plan; by comparing the ad valorem rates of the present tariff with the ad valorem rates projected in the Carlisle bill and uniform duty plans, it will be seen that the present average ad valorem rates of duty on melada and on all sugars not above No. 7 D. S., are heavily increased, in uniform duty plans, to prevent their importation, and the present average ad valorem rates on sugars above No. 7 not above No. 13 D. S. are heavily decreased in uniform duty plans, to protect foreign vacuum pan colored crystals.

Again, it will be seen in the same table (1) that the present average ad valorem rate of duty on sugars above No. 13 not above No. 16 D. S. is also heavily reduced by the uniform duty plans, for the protection of refined crystals manufactured of a bright yellow color, and imported as raw sugar but intended to be sold as refined sugars for consumption, at large profits enhanced by duty evaded and by the aid of foreign coolie and slave labor.

Furthermore, Table No. 1 shows that the present average ad valorem duty on foreign white soft and hard refined sugars is heavily reduced in the Carlisle Sugar bill and uniform duty plans, and rendered entirely inadequate for the protection of Louisiana sugars and our enormous refining industries against foreign producers of such sugars, besides inviting the bounty-fed refined beet sugar product of Europe to control our market and destroy our sugar industries, and having done so, to enhance the cost of sugar to American consumers at pleasure.

The Carlisle Sugar bill and uniform duty plans reverse the rational order of levying duty. It will be seen in Table 1 that the higher the color, grade, quality, and foreign cost of imported

sugars, the lower the rate of duty levied under uniform duty plans, in order to protect foreign refined centrifugal crystals; and the lower the color, grade, quality, and foreign cost of imported sugars, including melada, the higher the rates of duty projected in said plans in order to prohibit raw sugar material and curtail American sugar producing and refining industries.

Under the uniform duty plans Cuban and Demerara centrifugal crystals, manufactured from refined syrup, and discolored to not above 13 D. S. in the process of graining in the finishing or vacuum pans, as elsewhere described, averaging $5.25 per 100 pounds, foreign cost, (see Table 1,) would pay the same duty, $2.40, as melada and the lowest grades of raw sugar material; only 45.7 per cent. ad valorem duty is levied on refined, but discolored, centrifugal crystals, 95 to 99° in purity, while 96 per cent. ad valorem duty is levied on raw sugar material containing 25 to 32 per cent. impurities by the Carlisle bill, and 80 per cent. by the No. 16 D. S. plan.

Further, the Carlisle bill proposes to admit semi-refined crystals above 13, not above 16 D. S., costing on the average $6.12½ per 100 pounds (see Table 1) in the country of production, at $2.75 per 100 pounds duty, and levies $2.40 per 100 pounds duty on melada and the lowest grades of raw sugar below No. 7 D. S.; that is, the foreign refined crystals are to come in at 44.9 per cent. duty for their protection, and raw material must pay 96 per cent. duty, which means prohibition thereof by overtax and by consumption in making colored crystals in producing countries for this market.

Instead of simplifying the collection of sugar duty, the uniform duty plans further complicate the collection thereof by totally ignoring classification checks and safeguards for the proper execution of the revenue laws; they propose the admission of dutiable sugars virtually without examination by the only methods that would detect, check, or hinder fraudulent practices, and by the constant application of which all transactions in raw and refined sugars are now conducted in the great sugar marts and principal sugar producing countries.

Again reverting attention to Table No. 1, the subtle elements of the Carlisle bill appear in an equally dangerous form, under the artless disguise of uniform duty of one to two cents per pound on all sugars not above Nos. 13 or 16 D. S.; the purposes of these plans are precisely those of the Carlisle bill, with an additional turn of the foreign screw, in favor of dutiable centrifugal sugars above 13 not above 16 D. S. in color, and against American producers and refiners of cane, beet, and sorghum sugars, and equally against consumers.

Uniform duty to 13 or 16 D. S. has never possessed a single merit beyond that of catering to official incapacity in levying duty. When suggested to the Government in 1877 by the writer, the intent was to protect the revenue in the absence of radical reforma-

tion needed in executing tariff laws; the plan might have been tried at that time with fair hopes of correcting false sampling, but has since become impracticable, owing to rapid advancement in making and coloring refined crystals to imitate raw sugar in producing countries, and outgrowing dangers to American commerce and industries.

Reverting to Table 1, for comparison, it will be seen that the uniform duty to 16 D. S. artifice, purposes to admit centrifugal crystals and other foreign sugars refined to not above 16 D. S. in color, at 32.6 per cent. duty advalorem, and levies 80 per cent. duty on melada, and 57 per cent. duty on all raw sugar material not above 7 D. S. in color, in order to protect the foreign manufacture of refined crystals and prohibit raw material by duty discrimination.

Uniform duty on sugar plans, reverse rational methods of levying duty by reducing the rate of duty on sugars as their grade, quality, and foreign cost increase, until the duty on 100 pounds of Melada containing 60 to 70 per cent. crystals and 30 to 40 per cent. of impurities and water, will admit 100 pounds of foreign refined dry crystals testing 99° in purity, but colored to not above 13 or 16 D. S., as the case may be, to evade proper duty; and uniform duty plans rapidly increase the rate of duty on sugars as the grade, quality, and foreign value thereof decrease, which prohibits raw material.

Beyond the No. 16 D. S. point, the uniform duty to 16 plan and the Carlisle bill are identical; all uniform duty plans furnish weapons to Cuban and West India manufacturers of colored crystals, and to European refiners of cane and beet sugars, for the destruction of American sugar producing and refining industries, and would cripple our growing commerce with remote sugar producing countries whose raw sugars would, if prohibited to us, find their way to Cuban vacuum-pans to be turned into crystals colored to the tariff limit, to escape duty.

Louisiana planters and American refiners are deeply, yes, vitally, interested in this matter. They may well look with concern upon this just exhibit of Cuban and West India plans for the destruction of their industries, put forth under the apparently artless pretense of simplifying the collection of duty on sugar, and settling the sugar question. Uniform duty on sugar would utterly destroy our beet and sorghum sugar enterprises, which, like all embryotic American industries, naturally and properly demand protection against underhand foreign encroachments.

Fifty years' history of tariff laws for levying duty on sugars in this and other great sugar consuming countries, dependent upon foreign sugars for consumption, evidences that every attempt to approach uniform duty on sugars has proved disastrous or impracticable and been abandoned, even when foreign raw sugars were not, as they now are, advanced in producing countries by refining the syrup and manufacturing and coloring crystals in vacuum-pans to victimize this people.

Still more dangerous, even suicidal, would uniform duty on sugars be, under existing circumstances, when it is clearly the purpose of such plans to reverse the natural order of refining sugars in this country for the adequate supply of cheap pure sugars to the poor and costly grades to the rich. Upwards of two thousand millions of pounds of refined sugars are consumed annually by the people of this country, seventy (70) per cent. of which must be refined from actual raw sugar material, in its normal condition, testing from 65° to below 92° in crystals, in order to produce pure but cheap refined cane sugars for the masses, or middling and poorer classes.

Admitting foreign refined crystals 95 to 99 per cent. in purity, but colored in vacuum pans to not above 13 or 16 D. S., at less than half the ad valorem rate of duty levied on actual raw material, (see table No. 1) would compel refiners to employ only high grade sugars for refining, and superinduce glucose adulteration; under such a regime, centrifugals of great purity would constitute the bulk of sugar imports; thus heavily reducing importations and revenue, enhancing the cost of sugars to consumers, and crippling our growing commeree with remote sugar producing countries.

Clayed sugars above No. 20 Dutch standard in color, pay duty as refined sugars, while the Carlisle sugar bill and uniform duty plans admit at the lowest rate of duty, centrifugals containing nine-nine (99) per cent. of refined crystals outwardly colored to No. 13 Dutch standard, but when ground producing sugar above No. 20 Dutch standard in color, equal to or better than No. 20 Dutch standard Java clayed sugars. Clearly the admission of such sugars at the lowest rate of duty must prohibit the importation of raw sugars.

Besides, the Carlisle sugar bill and uniform plans would in no wise correct abuses or adjust antagonisms between the Treasury Department and sugar merchants—differences which are almost invariably created by attempts to enter discolored centrifugal sugars as raw sugars, nefarious practices which the Carlisle bill and all uniform duty plans are fashioned to sanction, but which can and should be suppressed altogether.

Carlisle's sugar bill offers only a pretense of protection. It is a fact that in the fiscal year ended June 30, 1879, only $2.33 per 100 lbs. duty was collected on all dutiable sugars entered for consumption, and Carlisle's sugar bill offers a duty of $2.40 per 100 lbs. on all sugars not above No. 13 D. S. in color; but the $2.33 per 100 lbs. duty, was the result of false classifications of Cuban and Demerara colored crystals of great purity, as raw sugars, by which means duty was evaded.

Reference to the classification tables in these exhibits, will show that the writer's exposures in 1879 and since, in regard to coloring crystals to evade duty, quickly advanced classifications and increased the average duty collected from sugars consumed in 1880 to $2.45

per 100 lbs., and in 1881 to $2.46 per 100 lbs.; but the average foreign cost of dutiable sugars in 1881 was $4.42 per 100 lbs.; showing that false classifications still exist, and that we should have received at least $2.76 duty per 100 lbs. under the present tariff.

Evidently the sugar industries of the country are entitled to $2.76 duty per 100 lbs. protection on sugars under the present tariff, while the Carlisle bill accords only $2.40 per 100 lbs. on all sugars not above 13 D. S. in color, above which class only 1,298,158 lbs. were entered for consumption in the year ended June 30, 1881, out of a total of 1,869,173,897 lbs. of dry sugars entered for consumption in the fiscal year named.

Worse than this, the Carlisle bill reduces the duty on class No. 10 to 13 D. S. from 2.81¼ to 2.40 cents per lb.; this class covers the beautiful foreign semi-refined crystals now manufactured in Cuba, Demerara, &c., in vacuum pans to test from 95 to 99.5 per cent. in pure crystals, but outwardly colored to not above No. 13 D. S., in order to enter at 2.40 cents per lb. duty, while melada and other actual raw sugar material intrinsically low in grade, test, and color, must pay 2.40 cents duty per pound, or be prohibited.

These foreign refined vacuum pan colored crystals, over which the Carlisle bill and the 1 cent. per lb. plan propose to establish a tariff protectorate, as I have already shown in section first of these exhibits, are intrinsically sugars that should class above No. 13 D. S. in color, and pay 3.43¾ cents per lb. duty; while a large proportion of such sugars are found intrinsically above No. 16 D. S. in color, and should pay 4.06¼ cents per lb. duty, instead of 2.40 cents per lb. as raw sugars; it is foreign vacuum pan crystals colored to evade duty, and not the tariff, that prohibits the importation of Grocer's Sugars.

Glucose adulteration of cane sugar is also cordially encouraged and invited in the Carlisle bill and uniform duty to No. 13 or 16 D. S. plans, which would deprive us of melada and raw sugar material, and induce refiners to reduce Cuban crystals with glucose, in order to supply the demands of the middle and poorer classes who cannot afford to buy the rich man's sugar. Corn glucose and Cuban crystal mixtures would be a poor substitute for the numerous cheap grades of pure refined cane sugar, which can only be obtained from low grades of raw sugar material.

Regarding the plan of one cent per pound duty on sugar to No. 13 or 16 D. S., or even on all sugars, while possessed of all the defects of the Carlisle bill it also reduces the revenue from sugar nearly three-fifths; that is, in the fiscal year ended June 30, 1881, dutiable sugars entered for consumption, exclusive of melada, paid an average of $2.46 per 100 pounds duty on 1,869,173,897 pounds, $45,933,045; while one cent per pound would have produced only $18,691,739 revenue from sugar in the fiscal year 1881.

That even a respectable moiety of this enormous deficit could not

be made up by increased consumption, is evidenced by England's recent experience. In 1874 Great Britain abolished duty on sugars, with an annual consumption of 59.40 pounds per capita, an act she now regrets. Great Britain consumed only 56.66 pounds per capita in 1877, and in 1880 only 62.25 pounds per capita. Under existing circumstances this country would lose enormously, and could gain nothing by any wholesale reduction of duty on sugars.

The increased production and use of corn glucose, cannot be checked by reducing duty on sugar or by abolishing duty, because the cost of producing corn glucose has reached its maximum, and competition is rapidly cheapening it; corn will yield 70 per cent. of starch, or 60 per cent. of purest glucose, which can be sold at half the average foreign cost of cane sugars in 1881; glucose will inevitably be employed in vast quantities in preference to cane sugars, for table syrup, for brewing, and for certain candies; legitimate uses to which it should be confined.

Neither can any wholesale reduction of duty cheapen imported sugars, simply because we are at present dependent upon Cuba and Spanish possesions for more than four-fifths of our annual supply of foreign sugars, and Spain not only invariably discriminates against American commerce, but is bound by her records, to increase the export tax on sugar as we lower the duty thereon; therefore sugar cannot be cheapened by a one cent duty.

Nearly three-fourths of Cuban sugars are vacuum-pan made crystals intended to evade the Dutch standard; hence the average foreign cost of sugars entered into consumption in the year ended June 30, 1881, was $4.42 per 100 lbs., and we are already, comparatively, deprived of raw material from Cuba; as we concede duty, Spain will add export tax, and thus maintain high prices.

Uniform duty on sugar to 13 D. S. would admit foreign semi-refined crystals, testing 95 to 99 in purity, at the lowest rate of duty, from which refiners must turn out the rich man's sugar in excess and deprive the people at large of the cheaper grades of refined sugars for lack of raw sugar material. Under a uniform sugar tariff refiners could obtain drawback on exports to the full amount of duty paid and still retain a large part of their out-turn from centrifugal crystals for home consumption.

Having briefly disclosed the conspicuously greedy pretenses of the Cuban or uniform duty to 13 or 16 D. S. sugar tariff plans and the shortsightedness of the one cent per pound duty plan, I now present practical remedies for existing sugar tariff abuses and defects, with brief explanations premised by a comparative sugar tariff exhibit of present duty—50 per cent. ad valorem duty, and an equitable compound duty, calculating foreign cost and duty upon 100 pounds for convenience.

The following exhibit also shows the general equity of the present tariff for protection and revenue. Its enforcement by an

amendment hereinafter subjoined will correct existing abuses and remedy the defects of the Dutch standard:

Table 2.

Class average, D. S., per 100 pounds.	Average Cost.	Test Range.	Average Duty.	Rate Ad Val.	Ad Val. 50 per c.	*Compound Sugar Tariff.
Melada, or wet sugar	$2.50	62 to 70°	$1.87½	75	$1.25	$1.00 @25 p. c., $1.62½
Sugar not above No. 7 D. S.	3.50	70 to 85	2.18¾	62.5	1.75	1.00 @25 p. c., 1.87½
Above 7, not above 10	4.62½	85 to 92	2.50	54	2.31¼	1.12½@25 p. c., 2.28½
Above No. 10, not above 13	5.25	88 to 98	2.81¼	53.5	2.62½	1.25 @25 p. c., 2.56¼
Above No. 13, not above 16	6.12½	92 to 99	3.43¾	56.1	3.06¼	2.00 @25 p. c., 3.53⅛
Above No. 16, not above 20	6.50	93 to 99	4.06¼	62.5	10 p. c. extra. 3.90	2.50 @25 p. c., 4.12½
Soft sugar above 20	7.50	94 to 99	5.00	66.6	10 p. c. extra. 4.50	3.00 @25 p. c., 4.87½
Hard sugar above 20	8.50	95 to 99.5	5.00	58.8	10 p. c. extra. 5.10	3.00 @25 p. c., 5.12½

*Specific and ad valorem.

Natural, or honest, classifications of sugars, according to their intrinsic color, quality, and foreign market value, form the basis of the foregoing tabular exhibits; all sugars made from cane-juice by the open-pan process and finished by natural draining and claying, can be accurately classed by the Dutch standard alone, from melada and the purest manilla sugars, testing 60 to 75 in crystal, to the white clayed sugars of Java or Dutch celebrity, testing 99.5 per cent. in crystal purity, but the Dutch standard was never designed to class Cuban crystals or vacuum pan centrifugal sugars.

The foreign vacuum pan process of inspissating, graining, and coloring crystals formed from classified syrup of cane juice, as explained in detail elsewhere, produces manufactured crystals many times larger than Dutch standard or raw sugar crystals, equal in quality to the best hard refined sugar, but discolored outwardly to imitate the natural color of raw sugars made by the old process, and known as melada and natural drained muscovado and molasses sugars throughout the world; crushing and polarization are required to aid the Dutch standard in classing these colored crystals for duty.

While the right of foreign producers to make or finish sugars from cane syrup by the vacuum pan process, and to make crystals of any size they see fit, is unquestioned, the discoloration of sugar crystals while forming and when formed in the vacuum pan, is an accessory of projected fraud in the entry and classification of superior sugars, intrinsically of the highest degree of purity and value, as raw sugars of low grades to evade duty; these practices can only be prevented by combining grinding and polarization with the Dutch standard for levying duty on sugars.

Such being the case, Congress must deal with facts as they now

exist, and not as they existed in 1870 when the present sugar tariff was adopted and Cuban crystal coloring was unknown, in order to successfully counteract and prevent false classifications, which now circumvent the Dutch color standard and subvert the intent of our tariff laws; practices which the Carlisle bill and uniform duty plans are designed to legalize, as clearly appears in these exhibits.

Sugar tariff legislation intended to benefit 50,000,000 of American consumers, produce revenue, and protect home industries, should be based on the natural current demands for home consumption, industrial protection, and revenue. Were there but one kind of sugar known, the demands for consumption would be speedily determined, as in the case of corn or wheat, but different sugar producing countries offer many distinct grades or varieties of cane sugar material for our selection.

Formerly only melada, raw drained sugars, and a sprinkling of clayed sugars, from gray to white in color, were to be obtained from producing countries; hence the growth of refining industries in this country, as the tastes and demands for and capacity to buy luxuries increased with our national growth and prosperity.

There is nothing rational in legislative attempts to relegate this industrial outgrowth of American advancement to foreign control, neither would consumers of Louisiana crystals and American refined sugars, take kindly to raw muscovadoes and colored centrifugals, or to the enhanced prices that would follow the control of our market by foreign refiners and producers.

Hence the demands for consumption in this country, are for all grades of concentrated raw sugar material, from the lowest to the highest grades thereof, but in varied quantites for refining purposes, in order that the refined outturn may be proportioned in cost to the necessities of the poor, as well as to the demands of the rich; this requires that seventy per cent. or more of all refined sugars, shall consist of refined grades corresponding relatively in cost to the lower grades of the classifications of raw sugar material, which form the basis of our present sugar tariff.

There is no demand from consumers, for foreign raw white clayed and foreign refined sugars for immediate food consumption; all imported sugars are now refined in the United States; even Cuban and Demerara refined colored crystals 99.5 per cent. in purity, are passed through the American refinery at a nominal cost, to remove the outer film of color and change the grain, hence the demand for foreign raw material from which to obtain, pro rata as to cost, the varied outturn needed to meet the varied wants of consumers.

On this equitable and rational classification or ad valorem basis, sugar tariff legislation should be founded, and the rates of duty be fixed to conform to the demands of home industrial protection and revenue requirements; the present tariff already favors the higher grades of sugar; there is therefore not the shadow of excuse for re-

ducing the present rates of duty on high grades not above 13 or 16 D. S. in color, and increasing the present rates to prohibition, on melada and sugars not above No. 7 D. S., by a uniform rate to No. 13 or 16 D. S.

Honest color classifications of sugar for duty are, however, no longer the order of the day, and owing to foreign crystal coloring artifices, it is no longer possible, by the Dutch standard alone, to accurately determine the intrinsic color, quality, and market value of foreign vacuum pan manufactured centrifugal crystals, 95° to 99.5° in purity, discolored in the finish to be entered as raw sugars of low grade, but only sembling thereto in outward color.

Grinding and polarization must henceforth be employed as adjuncts to the Dutch standard, in order to accurately determine the actual intrinsic color, quality, and foreign value of dutiable sugars and levy duty thereon correctly, just as these agents are now employed by foreign vacuum pan and centrifugal sugar producers, and by all sugar merchants and refiners in this country and Europe, to determine the market value of sugars, and govern their transactions.

The evils of any uniform specific rate on all sugars to 13 or 16 D. S. even though bolstered by an ad valorem clause, are equally damaging to American interests, while to extend uniform duty to all sugars would be to surrender American sugar industries, as we have surrendered our carrying trade to foreign control.

Compound duties are mostly the outgrowth of irrational attempts to compromise between wholly specific and wholly ad valorem rates for levying duty, which should *not* be applied to sugars, of which there entered for consumption in the fiscal year ended June 30, 1881, including Hawaiian sugars and melada, no less than 1,966,617,950 pounds, valued at $88,463,464, duty collected thereon $46,318.073. As such a plan is known to be in embryo, an exhibit of an equitable compound sugar tariff is given in Table 2, which reveals the complexity of such a tariff, and the fact that any uniform duty on all sugars would destroy all equity, even in a compound sugar tariff.

Compound or mixed sugar tariff plans cannot equitably be based upon a uniform specific duty on all sugars, whether the rate be one cent or less or more per pound; what sense or justice would there be in levying a specific duty equal to 16⅔ per cent. ad valorem on semi-refined sugars that cost 6 cents per pound, and 33⅓ per cent on raw sugars that cost 3 cents per pound, or 40 per cent. on melada and lowest grade sugars, and plastering the whole with 25 per cent. more ad valorem; it only ends in levying 65 per cent. ad valorem on the poorest raw sugars, 58⅓ per cent. on the next grade of raw material, and admits semi-refined Cuban colored crystals at 41⅔ per cent. ad valorem, to destroy the industries of American sugar producers and refiners, and complicate the collection of duty.

Canada furnishes palpable evidence of the necessity of maintain-

ing a classification sugar tariff, and of the advantages secured by levying duty on each class of sugar pro rata to their foreign market value. Mark the immediate benefit of the slight but important changes made in 1879, in the Canadian sugar tariff of 1877, which admitted American refined sugars at prices that speedily closed Canadian refineries.

Sugar Tariff of the Dominion of Canada, 1877–1878:

Melada and concentrated, &c., per lb.	⅜c.	and	25	per cent.	ad valorem.
Syrups, all kinds cane juice, &c., "	⅜c.	"	25	"	"
Sugars below No. 9 D. S., "	½c.	"	25	"	"
Equal to 9 not above No. 13 D. S. "	¾c.	"	25	"	"
All sugars above 13 D. S., "	1c.	"	25	"	"

Under the above tariff, refined sugars could and, with the aid of American drawback, did enter Canada and undersell Canadian refiners, thus destroying their refining industry and shutting out raw sugars, without the slightest advantage to Canadian consumers.

Present sugar tariff of Canada enacted in 1879.

Melada and concentrated, &c., per lb.	⅜c.	and	30	per cent.	ad valorem.
Syrups all kinds, cane juice, &c. "	⅜c.	"	30	"	"
Sugars below No. 9 D. S. "	½c.	"	30	"	"
Equal to 9 not above 14 D. S. "	¾c.	"	30	"	"
All sugars above No. 14 D. S, "	1c.	"	35	"	"

Simply levying five per cent. extra duty on sugar above No. 14 D. S., refined sugars in fact, and levying duty on the American market value thereof, shut out American refined sugars from Canada, and not only started Canadian refineries, but tempted French capitalists to undertake numerous beet sugar enterprises in Canada, and virtually changed the sugar imports of Canada from refined sugars, to raw sugars for refining, in a single year as follows:

Dutiable sugars entered for consumption in the Dominion of Canada in the fiscal years ending June 30, 1879, 1880, 1881:

Classifications. Dutch Standard.	1879.		1880.		1881.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Sugars above 13, and from March 15, 1879, above No 14	91,828,152	$4,680,310	18,885,150	$824,827	15,858,005	$756,186
Equal to 9, not above 13, and from March 15, 1879, n. a. 14	19,390,746	768,637	56,403,251	1,847,205	53,459,146	2,117,515
Sugar below No. 9 D. S.	1,844,818	64,722	30,690,925	958,364	58,964,513	2,003,539
Melada	1,650,215	$46,446	7,639,332	$180,635	6,844,512	$192,800

Refined sugars exported to Canada from the United States:

1879. 53,717,659 lbs. $4,235,348.
1880. 731,909 lbs. $66,921.
1881. 369,557 lbs. $30,301.

This country has immense sugar refining and sugar producing industries to protect against foreign refining and colored crystal mak-

ing industries, which are raiding upon them under false classifications of vacuum-pan centrifugal sugars, discolored outwardly to imitate raw sugar material and entered as such, to evade duty on their actual value.

Stealthily have two great foreign food monopolies invaded our continent; the one protected by the Reciprocity Treaty with Hawaii flourishes upon our credulity at public cost, the other conducted by foreign chicanery now seeks protection from Congress through the Carlisle bill, and similar uniform sugar duty enactments. The lessons of experience and the demand of consumers, home industries, and revenue, teach that these stupendous interloping foreign sugar food monopolies should henceforth serve our National interests, or be destroyed.

There exists but two rational plans for a sugar tariff in this country; the present classification tariff amended and enforced by grinding and polarization in addition to the Dutch standard, or an actual ad valorem tariff with the same appliances for its enforcement, and radical reform in the execution of our tariff laws, which is also of infinitely greater importance than tariff tinkering, as a means of enabling Congress to reach a rational basis for tariff revision.

Actual ad valorem rates upon dutiable sugars (see Table 2) involves the necessity of adding ten per cent. extra on all sugars above 16 D. S. in color, including refined sugars, for the reasonable protection of American producers and refiners, and for the benefit of consumers; otherwise foreign bounty fed refined beet sugars, and pure Cuban and Demerara vacuum-pan crystals of natural color would be favored, which would speedily destroy American competition therewith, and place consumers of sugars wholly in dependence upon foreign refiners who would enhance prices accordingly.

Evidence of the gigantic strides already made by Cuba and other near sugar producing countries, in exhausting their raw material to make semi-refined vacuum pan crystals of highest purity therefrom, disguised by coloration as raw sugars, will be found in the following table, which exhibits the potency of the writer's exposures of coloration devices in the extensive reversal in 1880–1881 of the false classifications in previous years—1878–1879 for example.

Classification by the Dutch standard.	1878.		
	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*		
All not above No. 7 Dutch standard	860,287,182	$41,516,497	$18,818,784
All above No. 7 and not above No. 10 D. S.	618,019,876	33,232,883	16,450,497
All above No. 10 and not above No. 13 D. S.	72,316,574	4,110,502	2,033,904
All above No. 13 and not above No. 16 D. S.	1,474,118	73,831	50,673
All above No. 16 and not above No. 20 D. S.	561,068	35,491	22,793
All above No. 20, loaf, and other refined	216,294	16,866	10,814
Total dry sugar	1,552,875,112	78,986,070	36,387,465

Classification by the Dutch standard.	1879.		
	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*		
All not above No. 7 Dutch standard	890,801,182	$36,627,477	$19,486,276
All above No. 7 and not above No. 10 D. S.	671,574,592	27,614,075	16,789,365
All above No. 10 and not above No. 13 D. S.	35,556,456	1,649,309	1,000,307
All above No. 13 and not above No. 16 D. S.	483,110	25,627	16,607
All above No. 16 and not above No. 20 D. S.	20,221	1,160	821
All above No. 20, loaf, and other refined	16,425	1,283	821
Total dry sugar	1,598,461,986	65,918,931	37,294,197

Classifications by the Dutch standard.	1880.		
	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*		
All not above No. 7 Dutch standard	299,298,496	$11,394,541	$6,547,154
All above No. 7 and not above No. 10 D. S.	1,222,747,078	52,407,812	30,568,677
All above No. 10 and not above No. 13 D. S.	67,726,078	3,085,292	1,904,796
All above No. 13 and not above No. 16 D. S.	2,353,604	118,229	80,905
All above No. 16 and not above No. 20 D. S.	118,582	8,453	4,817
All above No. 20, loaf, and other refined	18,119	1,502	906
Total dry sugar	1,592,261,957	$67,015,831	$39,107,256

Classification by the Dutch standard.	1881.		
	Quantity.	Value.	Duty.
Sampled and classed for duty.	*Pounds.*		
All not above No. 7 Dutch standard	401,626,484	$15,395,744	$8,785,579
All above No. 7 and not above No. 10 D. S.	1,323,451,981	60,216,407	33,086,300
All above No. 10 and not above No. 13 D. S.	142,797,277	7,044,675	4,016,173
All above No. 13 and not above No. 16 D. S.	1,267,215	62,123	43,561
All above No. 16 and not above No. 20 D. S.	12,241	538	497
All above No. 20, loaf, and other refined	18,699	1,599	935
Total dry sugar	1,869,173,897	$82,721,086	$45,933,045

Average duty, per lb., 1878, 2.34c.; 1879, 2.33c.; 1880, 2.45c.; 1881, 2.46c.
Ad valorem rate, per cent., 1878, 46,06; 1879, 56.57; 1880, 58.35; 1881, 55.52.

Cuban crystals increased the foreign cost of dutiable dry sugars consumed by us in 1881 to an average of $4.42 per 100 lbs.; the average invoice value of Cuban sugars only, for 1881, being $4.85 per 100 lbs., or including Spanish possessions, $4.60 per 100 lbs., as against $3.84 per 100 lbs., the average invoice value of dutiable sugars from all other countries in 1881, showing the disadvantages and absurdity of depending longer upon Cuba and Spanish possessions for raw sugar material, which they now semi-refine at the expense of American consumers, industries, and revenue.

Regarding the use of the polariscope as an adjunct to the Dutch standard, private and official information, currently received by the writer from sugar producing countries near and remote, establishes the fact that, in countries where sugar is made by open pan methods

and natural evaporation, inspissation, and drainage only, the color test remains an accepted standard of absolute market value, and the polariscope is virtually unknown for such purpose.

Contrariwise, in Cuba, Demerara, and contiguous sugar producing countries, where raw sugars and cane syrups are advanced above their normal condition, by vacuum pan methods of making or finishing sugar, and also in all the great sugar marts of this country and Europe, the polariscope is invariably employed, as an auxilliary aid to the Dutch standard, for determining value; without this combination of detective forces, trade transactions in sugar are no longer safe.

Treasury and customs officials are appointed to collect the revenue according to law, unfortunately no tenure of office exists, consequently tariff laws are too often lost sight of; fear of the headsman induces officials to comply with Treasury Department decisions and anomalous instructions, prepared by subordinates having authority at their discretion, and bearing the sanction of Executive commands, in the formal signature of the Secretary of the Treasury.

Congress must be well aware that tariff changes are fraught with momentous results, broader, deeper, grander than the mere matter of simplifying and lightening the well paid laborer of collecting and disbursing customs revenue; therefore what may be recommended to that assemblage as acceptable to officials or necessary for their comfort, should be considered "*cum grano salis*," as not always being conducive to the commercial, industrial and revenue interests of this progressive nation.

Pending legislation, the Secretary of the Treasury should no longer permit the drying of cargo samples before testing the same or classing the sugars for duty. Fully recognizing the foreign devices that now render official classifications of sugar for duty more difficult than in 1870, I know that there is no necessity for drying cargo samples,—thus changing the intrinsic texture of the sugar,—before testing and classifying the same for duty.

Simply grinding cargo samples of Cuban and Demerara crystals or centrifugal sugars, until they assimilate in grain the Dutch standard examples employed for comparing color, reveals their intrinsic or natural color effectually; whereas, grinding leaves the color of raw sugar material or drained sugar virtually unchanged; the polariscope should be applied to properly drawn cargo samples, in their normal condition as drawn from cargoes, including moisture contained therein when taken from the cargo.

Refining sugar in bond under official surveillance, should also receive the early sanction of law; the practice would simplify the collection of revenue from sugar, and enable importers and refiners to largely extend their operations, and thus by cheapening sugars stimulate consumption; cane sugars refined in bond for home consumption, would necessarily be pure, because duty would have to be paid upon the full outturn from bonded sugars.

Refining in bond would also encourage the production of refined sugars for export to foreign countries, and thus advantage American commerce and home industries; with the privilege of refining sugars in bond, and the advantage of drawback correctly adjusted to the outturn of product pro rata to the duty paid upon the raw material employed in refining, American refiners can successfully compete with the refiners of Europe, for their own and other markets of the world.

Refining in bond doubly protects the interests of the Government, inasmuch as sugars bonded for refining would be constantly under official surveillance, at the expense of refiners, from their arrival in port until the refined outturn was entered out of bond for home consumption or export; sugars entered for refining in bond would on arrival be sampled, tested, weighed, classed for duty, and sent direct to bonded refineries, the refiners giving satisfactory bonds in double the amount of duty levied on the bonded sugar for payment thereof when the refined product which, less loss in refining must coincide with the bonded sugar, was entered out for consumption or export.

Congress should also practically recognize our cane beet and sorghum sugar industries as available and powerful factors in delivering this country speedily from its abnormal dependence upon Cuba and Spanish possessions for sugar food. These industries should be protected by judicious legislation which gives no undue advantages to foreign producers and refiners; thus considered and encouraged, the capacity of Louisiana and other States for producing cane, beet, and sorghum sugars is simply measureless.

One of the most eminent and skillful sugar refiners of the age says: "The foreign producer has manipulated the natural color of the product of the plantation, and thus destroyed the equity of the Dutch standard; the refiners suffer with the Government, and therefore earnestly advocate the introduction of the polariscope as a detective." The same authority states that natural raw sugars range entirely below 92° in the polariscope, and centrifugals above 92°; centrifugals, or vacuum pan crystals, can be lowered in color and maintain the test from 92 to 99° in purity, and also their exceptionally high value.

Official analyses in France, numbering more than 7,000, give the following results: Average polariscope test of raw sugars not above No. 9, D. S. in color, below 92 degrees; sugars intrinsically No. 10 to No. 14 D. S. in color, average test above 91.25 to 94.55 degrees, and sugars intrinsically No. 15 to No. 18 D. S. in color, average test above 94.55 to 97.36 degrees, showing that sugars testing 92 degrees and above are advanced beyond the normal condition of raw sugars, in intrinsic color, quality, and value.

The results of many thousands of tests of cargo samples of dutiable sugars examined by the writer and in his possession, also establish the fact that raw sugar material ranges below 92 degrees in the polariscope, and that foreign vacuum-pan centrifugals or

Cuban crystals, range 92 to 99 degrees in purity, and assimilate refined sugars.

The following amendment to the present sugar tariff will correct its only defects,—authorize the use of necessary adjuncts to the Dutch Standard for classing and levying duty on sugar,—adequately protect the revenue and American sugar industries against foreign devices of disguising semi-refined sugar crystals as raw materal,—and speedily increase our commerce with remote sugar producin countries.

More radical changes in the sugar tariff may safely be postpone until, in connection with other important commercial, industri and revenue interests, such can properly be adjusted in the gen tariff revision now demanded by our commercial and industrial vancement.

Before working into the hands of interested "free traders, who mistakingly or purposely would plague and hinder the vancement of our industries and laboring classes,—by radical ductions of duties on imports, Congress should relieve the pe le from direct taxation, still perched upon the Escutcheon of our Union, like some fowl bird of prey.

Consuming as we do annually nine-tenths ($\frac{9}{10}$) of our own aggregate productions, we can only export one-tenth ($\frac{1}{10}$); instead of having a surplus, there is a constantly increasing foreign demand for our prodnctions; the American people are in no mood to take free-trade lessons from England, which country collects relatively more revenue from tobacco than this country collects on sugar, and has, for example, been badly bitten by France while attempting to deal in duty-free sugars.

Common sense and experience in the matter of coffee and tea teaches that any radical reduction of duty on sugar will at once be offset by enhanced prices of raw material abroad and increased profits to dealers at home, while consumers would gain nothing by such legislation. Enable the Government to first collect the full revenue from sugar by the following amendment, then a reasonable and permanent reduction of duty thereon can be made by Congress understandingly:

Amendment: All sugars not above No. 10 D. S. in color, testing 92 degrees and above in the polariscope, shall pay duty as above No. 10 and not above No. 13 D. S. in color, and duty shall be levied on sugar by testing the cargo samples thereof as drawn from the cargo, including moisture therein contained.

HENRY A. BROWN, *Saxonville, Mass.*

N. B.—Recognizing with pleasure the valuable assistance currently afforded me by correspondents and officials in foreign sugar-producing countries and in this country, to each of whom this pamphlet will be sent, I avail myself of this opportunity to convey to them my thanks. HENRY A. BROWN.

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